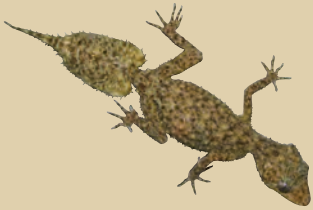


The bushland of Bidjigal Reserve

and adjoining reserves

A place of rugged natural beauty, full of hidden treasures; a time capsule of ancient eco systems, aboriginal shelters, and colonial history: Bidjigal Reserve has much to offer us - from those who walk its tracks every day, to those who enjoy a view of its green expanse while driving by.

With sheer cliffs, towering eucalypt forest, sparkling creeks and sheltered rainforest gullies, it's an island of natural habitat in the middle of urban Sydney. Big enough to support a wide range of wildlife; the reserve is alive with noise, colour, and movement from birds, mammals, reptiles and insects.

Most of the reserve has been public land since the earliest days of European settlement, and it's now entering a new era with a new name, some changes in boundary and its own management trust.

This booklet is about Bidjigal Reserve and the adjoining, Council managed, lands. It has been produced to help people understand and enjoy this wonderful patch of bush, and to find their way along its tracks.

For practical purposes we have used the name Bidjigal to refer to the entire Darling Mills Creek bushland corridor.

Rugged, rocky hillsides are typical of Bidjigal's sandstone country.

Place in the landscape

Sydney is part of one of the world's most amazing natural landscapes. We are fortunate to still have an abundance of wildlife, and people in the suburbs don't always need to visit the bush to enjoy it because it comes to them in the form of colourful parrots, friendly possums - even our fascinating flying foxes. But this is only because we have retained wild places like Bidjigal Reserve. It's part of a network of habitats across the region, including medium sized patches of bush at Pennant Hills Park, and Berowra Valley, and smaller pockets in parks and on private land. Large areas of National Park and uncleared private bush to the north, south and west of Sydney complete the picture.

The creeks and drains of Bidjigal Reserve and its surrounding catchment flow into Darling Mills Creek, then join with Toongabbie Creek (behind Westmead Hospital) to form the Parramatta River, flowing east into Sydney Harbour.

Aboriginal connections

The first Aboriginal people probably arrived in the Sydney region over 40,000 years ago. The earliest record of people in Bidjigal Reserve is from a rock shelter where – starting 10,000 years ago – they left many stone artefacts, along with animal bones including Dingo, Eastern Grey Kangaroo, Brush-tailed Rock Wallaby, Swamp Wallaby, and Echidna.[1]

Sandstone cliffs and outcrops provide many interesting vantage points, such as this one near Sanctuary Point Road.

Left: *Many plants had multiple indigenous uses, such as the versatile Grass Tree* Xanthorrhoea *which provided spear shafts (flower stems), glue (resin), flavouring for sweet drinks (nectar), nourishing snacks (leaf bases), and drills for starting fires (dry flower stems).*

Right: *One of Bidgigal's many rock shelters.*

Bidjigal Reserve had a lot to offer the aboriginal people for a short stopover or extended stay:

- a choice of rock overhangs for shelter,
- permanent fresh water for fishing and swimming,
- a wide range of plants and animals useful for food, medicine, fibre for weaving baskets and bags, and wood for weapons, tools and containers,
- sandstone for tool sharpening (although the basalt, silcrete and quartz suitable for making axes and sharp edged tools would have been acquired elsewhere),
- easy access (1 or 2 hour walk) to tall forests of the shale ridges, and the open forests of Cumberland Plain to the west,
- proximity to major regional travel routes generally along ridgetops, such as Old Northern Road between Parramatta and the Hawkesbury.

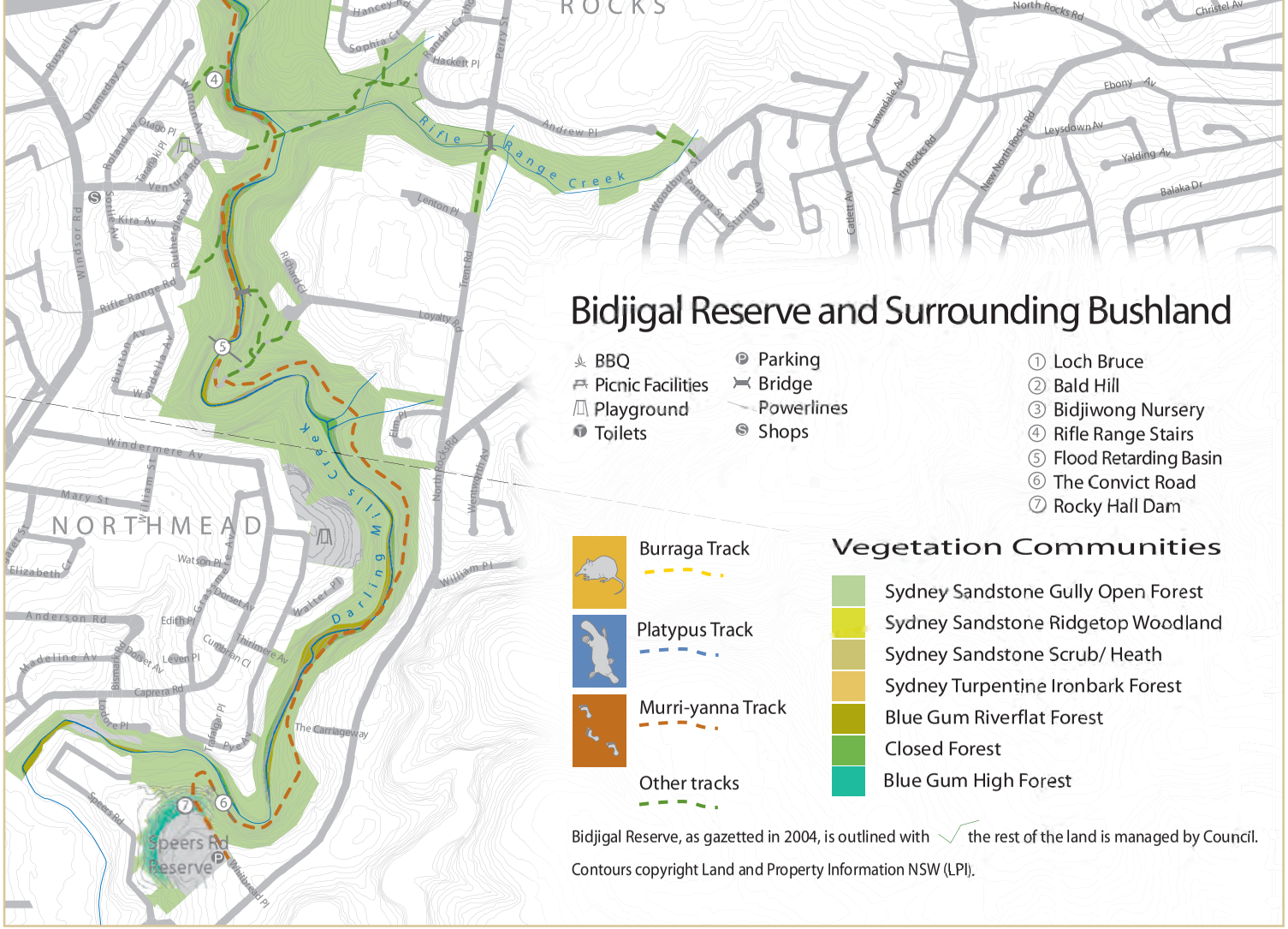
When Europeans arrived the area was part of the territory of the Bidjigal clan of the Darug people. But their use of the reserve came to a sudden and tragic end in 1790 when the smallpox epidemic killed most of the clan, and many of their neighbours. Although the survivors continued many aspects of traditional life, within about 30 years the ongoing expansion of European settlement made this impossible. Despite such great changes, descendants continued to preserve and celebrate their culture right up to the present day.

Most of the landscapes of Darug country, including the tall forests of the ridgetops, the open woodland of the Cumberland Plain, and the highly productive river flats have almost disappeared, but the reserve is one slice of ancient Sydney that has remained relatively unchanged.

Coo-ee! How Many Darug words do you know?

Wallaby, Wombat, Potoroo, Koala, Bettong, Waratah, Corroboree, and boomerang are some of the more common words adopted from the Darug language.


CASTLE HILL
Eric Mobbs Reserve
Coachwood Creek
Excelsior Creek
Saw Mill Creek
Gahnia Creek
Christmas Bush Creek
Angophora Creek
Belbird Creek
WEST PENNANT HILLS
Richard Webb Reserve
Darling Mills Creek
BAULKHAM HILLS
Ted Horwood Reserve
Stephenson Creek
Pimelia Creek
Blue Gum Creek
Gahnia Creek
NORTH
M2 Motorway
Contour interval = 2m
0
1000m



Bidjigal Reserve and Surrounding Bushland

- BBQ
- Picnic Facilities
- Playground
- Toilets
- Parking
- Bridge
- Powerlines
- Shops

1. Loch Bruce
2. Bald Hill
3. Bidjiwong Nursery
4. Rifle Range Stairs
5. Flood Retarding Basin
6. The Convict Road
7. Rocky Hall Dam

Burraga Track

Platypus Track

Murri-yanna Track

Other tracks

Vegetation Communities

- Sydney Sandstone Gully Open Forest
- Sydney Sandstone Ridgetop Woodland
- Sydney Sandstone Scrub/ Heath
- Sydney Turpentine Ironbark Forest
- Blue Gum Riverflat Forest
- Closed Forest
- Blue Gum High Forest

Bidjigal Reserve, as gazetted in 2004, is outlined with the rest of the land is managed by Council.

Contours copyright Land and Property Information NSW (LPI).

Cliffs near Williams Road. Sandstone blocks of enormous size can detach from cliffs and roll into the valley after erosive forces (such as seeping water) slowly exploit weaknesses along vertical joints and bedding planes.

Landscape, rock and soil

Bidjigal Reserve owes its survival to its **Hawkesbury sandstone** geology, and the steep rugged topography that forms on it: unwanted for farming or urban development, the valley remained in a natural state until recent times when its conservation and recreational values were appreciated.

The sandstone, formed in the Triassic (270 million years ago) consists of quartz grains cemented with clay and iron minerals. This massive rock unit is slowly weathering away to form the familiar cliffs, caves, overhangs, outcrops, boulders, and sandy soils of the Sydney sandstone country.

Above the sandstone lies a layer of **Wianamatta shale**. Made up of clay minerals, it weathers more evenly, resulting in a flatter landscape with deeper, more fertile soils.

Shale is common in surrounding suburbs but there are only small remnants in the reserve: at the edges in higher areas. It was eroded away over the last few thousand years as the Darling Mills Creek system cut through the landscape to carve out the valley.

Alluvial soils. Where the valley floor was wide enough for a floodplain to develop, sediment and organic material accumulated forming deep, rich soils. There was enough to be a useful resource: by the late 1940s about 3,000 tonnes had been extracted for use as garden humus.[2]

Plants

From Coachwood gullies to Ironbark ridges

Bidjigal Reserve is a great place to get to know Sydney's bushland, with over 370 native plant species including an amazing 29 different native orchids. It's also known for its diversity of fungi.

Almost gone

It is rare to find any native vegetation on Sydney's ridge top shale country: the gently sloping topography and relatively fertile soils made these areas valuable for timber getting, farming and eventually urban housing. Any remnants, however small, are now very important. They have been given special status under State and Federal legislation, as Endangered Ecological Communities, because they are at risk of disappearing completely if current threats - such as clearing and weed invasion - aren't addressed. Small patches of the endangered communities, Blue Gum High Forest and Turpentine-Ironbark Forest, can be found in the reserve system.

Above: *The elegantly twisted trunk and branches of the Sydney Red Gum, a common sight in the Reserve.*

Right: *Flying Duck Orchids, one of Bidjigal's tiny treasures.*

The character of the bush varies due to the soil type, landscape position, and fire history of the site. Particular groups of plants tend to occur together and are called ecological communities. Boundaries are not always distinct but it is possible to recognise six main types in the reserve.

Sandstone Gully Open Forest

Most of Sydney's urban bushland is sandstone gully forest. Here it is found on the sheltered lower slopes and south facing hillsides where there are ferny patches and trees over 30m, through to the drier more exposed upper slopes where the shrub layer can be dense and spiky.

Trees: Blackbutt *Eucalyptus pilularis* (pictured) Sydney Peppermint, *Eucalyptus piperita*, Sydney Red Gum *Angophora costata*, (pictured) Narrow Leaved Apple, *Angophora bakeri*, Red Bloodwood *Corymbia gummifera*, Black She Oak, *Allocasuarina littoralis* etc.

Understorey: Christmas Bush *Ceratopetalum gummiferum*, Coral Heath *Epacris pulchella*, Needlebush *Hakea sericea*, White Spider-flower *Grevillea linearifolia*, Rainbow Fern *Caloch-laena dubia* (pictured), and Grasstree *Xanthorrhoea*.

Habitat Highlights: Thick leaf litter, tree hollows, sandstone outcrops, dense shrub layer, plentiful nectar producing shrubs.

Blackbutt trees grow tall and straight in sheltered parts of the sandstone gully.

Sydney Sandstone Ridgetop Woodland

A common community around Sydney, found on drier parts of the sandstone country, such as ridgetops and north facing slopes with shallow soils.

Trees are lower and more widely spaced, with a shrubby understorey and a thick and diverse groundlayer.

Trees: Red Bloodwood *Corymbia gummifera*, Stringybark *Eucalyptus sparsifolia*, Scribbly Gum *E haemastoma*, Narrow Leaved Apple *Angophora bakeri*, and Sydney Peppermint *Eucalyptus piperita*

Understorey: Tea Tree *Leptospermum trinervuim*, Mountain Devil *Lambertia formosa*, Hairpin Banksia *Banksia spinulosa*, Spear Oat Grass *Anisopogon avenaceus*.

Habitat highlights: Sandstone outcrops, nectar producing shrubs.

Lara McKinley

Woodland near Hains Avenue.

Above: *Early morning light lends a glow to the trunks of the blue gums at Richard Webb Reserve.*

Right: *Drumsticks,* Isopogon anemenifolius.

In the first few years after an intense fire the vegetation is low and the country quite open, looking almost bald. Currently it had been unburned for about 25 years and the woodland/scrub is tall and thick, with a dense grassy groundlayer.

Sydney Sandstone Scrub/Heath

Restricted to Bald Hill, the only uncleared hilltop in the reserve (and most of urban Sydney), where the shallow soils do not support tall trees.

Trees/Shrubs: Dwarf apple *Angophora hispida*, Black She Oak *Allocasuarina littoralis*, Tick Bush *Kunzea ambigua*, Hairpin Banksia *Banksia ericifolia.*

Habitat highlights: Dense scrub and groundlayer, nectar producing shrubs such as Drumsticks *Isopogon anemenifolius* (pictured).

Blue Gum High Forest

An endangered ecological community, once occurring in a band along the shale capped ridges in high rainfall parts of north-west Sydney, such as West Pennant Hills, now just a series of small remnants including the top of Richard Webb Reserve. The small patch at Speers Road is an interesting outlier, where

Helen Pollard

Left: *The butterfly, Symmomous Skipper, depends the native mat rush,* Lomandra longifolia, *its caterpillars eat nothing else.*

Right: *The native pea,* Platylobium *– spring in the shale country can be a feast of colour!*

locally moist conditions and enriched soils have allowed Blue Gum High Forest to develop south-west of its normal range.

It is dominated by tall straight Blue Gums to 40m, with an open shrub layer and thick grassy groundlayer or, in moist sheltered areas, patches of fern.

Trees: *Eucalyptus Saligna*, Blackbutt *Eucalyptus pilularis*, Forest Oak *Allocasuarina torulosa* etc.

Understorey: Prickly Beard Heath *Leucopogon juniperinus*, Narrow Leaved Geebung *Persoonia linearis*, Handsome Flat-pea *Platylobium formosum* (pictured), *Clematis aristata*, *Poa affinis* etc.

Habitat highlights: Plentiful large tree hollows, grassy areas.

Sydney Turpentine Ironbark Forest

Also an endangered ecological community, once common along Sydney's shale capped ridges – in slightly drier situations than Blue Gum High Forest. There are still small fragments around Ted Horwood Reserve and Eric Mobbs Reserve. They are at the edge of the shale country where it starts to grade into sandstone and technically are the "Margin Forest" or transition form of the Turpentine-Ironbark Forest. Trees would have been 20-30m high with a grassy or shrubby understorey

Trees: Turpentine *Syncarpia glomulifera*, Forest Oak *Allocasuarina torulosa*,

Understorey: Bearded heath *Leucopogon* juniperinus, Kangaroo Grass *Themeda australis*, *Lomandra longifolia*, *Hardenbergia violacea.*

Habitat highlights: Tall trees with hollows, grassy areas.

Above: *Much of the closed forest zone was disturbed during sewer installation, but regeneration is occurring where weeds are controlled. Here the track passes through a dense thicket of young Coachwood beside Darling Mills Creek.*

Right: *These old Turpentines at the top of Eric Mobbs Reserve are a reminder of the Turpentine-Ironbark Forest that once grew here.*

Left: *This patch of native meadow near Eric Mobbs Reserve contains 47 different native plant species in an area the size of a large suburban block – but much more exciting than average lawn! It provides habitat for small animals like butterflies, lizards and birds.*

Left: *Watergums grow in the flood zone; their twisted, sometimes horizontal, forms are shaped by the force of the water.*

Right: *A hazard reduction burn near Williams Road 2000.*

Closed Forest and Scrub

Bidjigal's own rainforest can be found in small patches and narrow bands along the creek banks, in sheltered sections of the gully. The canopy is dense and shady; tall shrubs – mostly young rainforest trees – make up the understorey and groundlayer vegetation is sparse.

Trees: Coachwood *Ceratopetalum apetalum*, Blackwattle *Callicoma serratifolia*, Watergum *Tristaniopsis laurina*, Grey Myrtle *Backhousia myrtifolia*, Lily Pily *Acmena smithii*

Understorey: Muttonwood *Rapanea variabilis*.

Habitat Highlights: Dense canopy offering protected roosting sites, moist leaf litter, shady and cool.

Blue Gum River Flat Forest

Once found on the alluvial soils, this community has been greatly altered by logging, floodplain disturbance and introduced weeds – today's forest is much reduced in size and diversity. Trees were tall and straight -up to 40m, the understorey (now replaced by weeds) was probably a luxuriant mix of ferns, grasses and vines.

Trees: Sydney Blue Gum *Eucalyptus saligna*, Turpentine *Syncarpia glomulifera*, and many of the closed forest species.

Habitat Highlights: Deep moist soils with thick organic layer, plentiful large tree hollows.

Blue Gums below Loyalty Road. The deep moist soils that occur along the valley floor support the tallest trees.

Fire

Regular fires (perhaps every 7 to 20 years) are part of the natural cycle in Bidjigal Reserve, and have helped shape the character of its bushland.

It's a delicate balance: many of the plants require fire to open seed pods and clear the ground so that new seedlings can establish, but if fires are too frequent they may not get a chance to grow and seed at all, and will die out.

The Darug people used fire as a tool, particularly in the grassy woodland and tall forest of the ridgetops, to flush out game such as kangaroos and possums, to promote the growth of fresh green grass for grazing animals, and to keep tracks clear.

Fire management is one of the big challenges in large urban reserves such as Bidjigal. A balance between safety and bushland protection can be achieved with strategies such as:

- establishing and maintaining a fuel reduced zone along the property boundary. In a wildlife situation, this will allow fire fighters to back burn (light a fire that will burn towards the advancing fire front);
- programming hazard reduction burns in a mosaic pattern over a number of years, to provide patches in different stages of regeneration;
- using bush regeneration techniques to control the weeds – the open post fire landscape provides a great opportunity for weeds to expand their territory.

Ferns and Christmas Bush regenerating a few months after a fire near Willow Drive.

Wildlife

Still Echidna country

Bidjigal Reserve and surrounding bushland forms a patch of habitat large and healthy enough to support mammals, such as Echidnas and Sugar Gliders, that have become rare in urban bushland – even more surprising have been recent sightings of Swamp Wallabies.

Where are the Bandicoots?

Possible tracks and diggings have been reported, and now that fox numbers are decreasing, the Reserve should be much safer for them, but they haven't been seen since the mid 70s – it's just one of Bidjigal's wildlife mysteries.

Other unusual (for urban bushland) mammals that might be still there but have not been found in recent surveys are the Bush Rat, Water Rat, and Antechinus. Local residents regularly saw Platypus until the installation of the sewer in the mid 70s, but nobody has reported seeing one since.

Birds in abundance

Bidjigal is known for its great diversity of Birds; 127 have been recorded, including many of the increasingly rare insectivorous species such as Wrens and Thornbills. Many

Distinctive emerald green spots help identify this Perons Tree Frog.

Left: *Blue Wrens have disappeared from much of Sydney's urban bushland, and we will need to manage Bidjigal Reserve carefully to ensure their safety here.*

Left: *Old Angophoras provide excellent nest hollows e.g. for Crimson Rosellas.*

Above: *Brightly coloured, bold and curious; the Yellow Robin is often seen by park visitors.*

of the more common species, such as Kookaburras, and Crimson Rosellas, seem to be doing well and often visit surrounding gardens. Some, such as Sulphur Crested Cockatoos and Rainbow Lorikeets, have increased in number in the Reserve in recent years.

Australia's largest owl, the endangered Powerful Owl breeds in the reserve.

Leaping lizards!

Sydney's sandstone country supports a wide range of reptiles, and Bidjigal Reserve reflects this with 22 species recorded – although more vulnerable species, such as the Diamond Python, have disappeared.

The golden crown snake is nocturnal and feeds mainly on lizards.

The Eastern Water Dragon is common in the reserve.

The leaf-tailed Gecko often finds its way into houses near the Reserve.

Right: *The Tawny Frogmouth prefers not to be seen, camouflaging its self as part of a tree, but this fledgling is too fluffy to really carry it off.*

Left: *Dragon fly*

Above: *The Green Grocer Cicada is one of our most familiar and well loved local insects.*

Ann Parks.

The invertebrate army

Like all healthy bushland, Bidjigal Reserve is teaming with ants, butterflies, wasps, and worms etc. They are constantly at work pollinating flowers, dispersing seeds, pruning the vegetation, turning over the soil, feeding the birds, recycling the waste and keeping each other in check.

Living streams

Bidjigal's freshwater habitats, though damaged by urban impacts, still support Yabbies, Eels, Turtles and many aquatic invertebrates, e.g. the Dragonfly (pictured).

Bidjigal's habitat assets:

- larger than most urban bushland patches,
- high number of old or dead trees with hollows,
- permanent water,
- variety of bush structures including dense scrub, tall forests, and open grassy areas,
- rocky outcrops with crevices.

Habitat problems:

- narrow shape – most of the reserve is close to an edge,
- a bush island – if a species dies out it may not be able to recolonise from neighbouring patches,
- introduced species such as foxes, dogs, cats and bees,
- poor water quality,
- much of the native vegetation replaced or altered by weeds.

Left top: *A dense growth of Privet, Balloon Vine, Lantana and other weeds had established its self along much of the creek side and valley floor by 1990.*

Left bottom: *A year later it was gone… but sites like this still need a lot of work – huge quantities of weed seed are stored in the soil, and newly open areas are just right for weedy annuals and grasses to move into.*

Right: *Bush Regenerator, Carol Isaacs with the noxious weed* Ludwigia peruviana. *It is a rapid coloniser and extremely difficult to eradicate.*

Repairing the bush

Lantana running rampant down the hillsides, trees draped in curtains of Balloon Vine, the valley floor a dark impenetrable thicket of Privet and Tradescantia… it might have been, but due to the countless hours of work by professional and volunteer bush regenerators, this isn't how Bidjigal Reserve looks today.

Over a million dollars were spent on bush regeneration in the reserve in the 15 years to 2004. Additionally, many local residents provide voluntary labour, and Council assists with training, equipment and project management. There are currently five volunteer bushcare groups working regularly in the reserve system: Winton Avenue, Pye

These dead trees near the end of Highs Road provide a range of nest hollows. Can you see some of the tenants?

Above: *With careful hand weeding the Winton Avenue Bushcare Group have nearly eradicated Tradescantia from this shady patch of forest, and ferns are returning. The weed is stored in plastic wrapped piles until it composts.*

Avenue, Mill Drive, Christmas Bush Creek and Richard Webb Reserve. There are also around 30 individual volunteers, mostly working behind their properties. But it's an ongoing job: the bush will deteriorate rapidly if not properly maintained, and parts of the reserve are still in very bad condition – particularly in the narrow southern section where little work has been undertaken.

A Bidjigal Reserve bushland history

40,000 years before present: Aboriginal people use the resources of the district to sustain a hunter-gatherer lifestyle.
1790s Europeans arrive: Aboriginal populations throughout the region are decimated by diseases like smallpox; their traditional way of life, including hunting and burning practices, has changed forever. The new arrivals begin to affect local bushland in a new and dramatic way.

Laurence Gatt

1804: 3,800 acres of land including the future Bidjigal Reserve is set aside by Governor King as the Baulkham Hills Common, for cattle grazing.
1818: The Baulkham Hills Common is revoked; most of the land is given to private individuals as land grants.
1820s: The settlers are using the reserve's natural resources:

- Quarries at the end of Excelsior Avenue (now Eric Mobbs Reserve) are supplying stone for buildings at Parramatta. (The areas last quarry, at Winton Ave, ceased operating in the 1930s).
- Timber; probably Blackbutt, Blue Gum and Turpentine, is being harvested.

Right: *This dry stone wall is part of a section of road that once ran parallel to North Rocks Road; known as the convict road, it probably dates from the 1820s.*

Left: *The bush regeneration teams of the early 1990s had their skills tested by Bidjigal's steep cliffs.*

1825: John Raine builds a steam flour mill on the corner of Windsor Road and North Rocks Road (now Bunnings Hardware) and named it the Darling Mills after Sir Ralph Darling, Governor of NSW from 1825 to
1831: The creek flowing from Thompsons Corner to the Parramatta River takes its name from the Mill.
1826-1830: Gangs of bushrangers use the Bidjigal's rugged gullies and rock shelters as a convenient base for intercepting travellers. The legendary Jack Donahue, known as the "Wild Colonial Boy", was a convict who absconded from his work gang and for three years robbed travellers between Sydney and the Blue Mountains – until he was shot by police in 1830. Local folklore links him to a cave hideout in Bidjigal Reserve. He became a hero among convicts. The singing of Donahue Ballads in public houses was banned by Governor Darling, but he had found his way into Australian folklore; the ballad "Bold Jack Donahoe" eventually became popular throughout the English speaking world.
1840s: The flat country with its Blue Gum and Turpentine-Ironbark forests is increasingly replaced by farms. The more vulnerable native animals such as Bettongs and Koalas, start to disappear.
1880s: Local legend tells of the highly prized Red Cedar Toona cilliata being logged in Bidjigal Reserve. There is no sign of it now, and its rainforest habitat occurs only in small pockets and narrow bands.
1890: Land to the east of the reserve – around Excelsior Avenue, Cross St, Cary Sreet, and Cook St – is subdivided into 3 to 12 acre lots.
Late 1890s: Foxes arrive: life becomes much more dangerous for local wildlife.

The Ruins of Thomas Atkins stone hut, built in 1827, survive in the reserve behind Whitbread Place. Atkins was a sawyer, involved in the local timber industry.

Above: *Reminders of the timbergetting days, sawn stumps are still common in Excelsior Reserve.*

Right: *The skilfully crafted Rifle Range stairs are still in good condition. Some of the steps were cut into bedrock and some made from stone quarried nearby.*

Early 1900s: The local community clear some of the Turpentine-Ironbark Forest at the end of Park Road to establish a cricket pitch (now the Top Field at Eric Mobbs Reserve).
1909: The Baulkham Hills Rifle Range opens. Soldiers fighting in both world wars trained at the Baulkham Hills Rifle Range, then from 1953 until 1969 it was used by the Sporting Shooters Association.

Land for the range was resumed in stages by the Commonwealth Government for defence purposes, commencing in 1909, until there was about 114 hectares extending from the end of Rifle Range Road, north west as far as Blacks Road. Access was via a stone staircase at the end of Rifle Range road; the target area was about 400 metres away – just north of the junction of Darling Mills Creek and Rifle Range Creek. A sandstone cliff behind the targets acted as a stop butt, and the remainder of the land was a safety zone.
1912: Foxes living in the valley cause problems for local poultry farmers. Pennant Hills Fox Club is formed with 40 members who organised hunting parties.

1920s: The Blisset family operates a sawmill near Taylor St and used Bullock teams – later horses and trucks – to drag logs out of the valley.
1939: A hut for the Girl Guides is built on the

Ruth Ryan

Top right: *Bullet holes can still be clearly seen in the rocks around the target area.*

Far left: *The Guide hut was built from salvaged wharf timber, and later recycled to build the new Guide Hall on Old Castle Hill Road.*

Left: *Loch Bruce.*

northern side of Coachwood Creek, a short walk from Loch Bruce. It is dismantled in 1948 but the site remains a popular campsite.

1941: Baulkham Hills Shire Council constructs a sandstone dam on Coachwood Creek, creating the swimming pool known as Loch Bruce. In an era before municipal and backyard pools were common, this and other natural swimming holes were a focus of summer recreation.

1950s: The quarry site at the end of Excelsior Ave becomes the local tip.

1955: "Cumberland Native Forest Extension 3" is declared, covering most of the parkland west of Bellbird Creek; it became Darling Mills State Forest in 1984.

1958: Excelsior Park is created when 160ha of Crown land – including the section of the old Baulkham Hills Common that had remained in public ownership – is transferred to Baulkham Hills Council and zoned for recreation.

The name was derived from Excelsior Avenue, the main access road to the reserve. In 1973 it was modified to Excelsior Reserve

Above: *Built by local resident Ronald Godden in the mid 1980s, with materials supplied by BHSC; the Godden Stairs link Winton Ave with the Darling Mills Creek track.*

to better reflect the natural character of the area. Excelsior Avenue itself first appears on parish plans about 1880 and is apparently named after the "Excelsior Land investment and Building Company", which subdivided the land.

The corridor for the M2 Motorway is gazetted.

1965-74: The urban era begins: land adjoining the reserve at Roland Ave, Candowie Cres (1965), Winton Ave, Creda Place (1969), Williams Road (1973) and Larra Crescent/Mill Drive (1974) is subdivided for residential lots.

1960s: The sports fields at Eric Mobbs, and an additional field at Ted Horwood are constructed.

1969: The Rifle Range closes.

1970s: Sediment loads in creeks increase due to clearing and development in the catchment; Council excavates 1000s of tons of sand from deposits in Coachwood Creek for use as top dressing on sports fields.

The rate of weed invasion increases, particularly in areas disturbed by sewer construction, along the boundaries of the new residential subdivisions, and around stormwater outlets.

The swimming era is over: water quality has deteriorated due to sewerage pollution and development in the catchment.

Carlingford North Rocks Bushland Trust forms in the early 70s, advocating for proper management of local bushland.

1974: Sewer pipelines are installed along or beside most of the creeks in the reserve. The resulting disturbance allowed extensive colonisation by weeds, and no provision was made to control them. Roads were constructed along the creeks and many of the tracks now follow these roads.

1978: The Excelsior Park Bushland Society forms to assist with the protection and management of the reserve. Local residents serve as Honorary Rangers, and assist with track building and weed control.

The first bush regeneration project commences. Inspired by Bush Regeneration pioneers Joan and Eileen Bradley, bushland

Ann Parks

Left: *The sewer "pop top" found in or alongside nearly all the creeks in the reserve, designed to let sewage flow out into the creeks if the system is overloaded rather than back up into houses.*

Below: *A large volume of mud is evident in Darling Mills Creek upstream of the Detention Basin.*

society volunteers work monthly for about a year; removing Privet, Blackberry and other weeds from Candowie Crescent to Loch Bruce.

Late 1970s: The Platypus becomes locally extinct.

1980: Land above Bidjigal – the Darcey Rd/Highs Rd/Castlewood area – is subdivided into residential lots. However Council recognises the need to protect bushland corridors: the new zoning includes restrictions on clearing.

1982: A wildfire (the only significant one on record) burns through the area north of Darling Mills Creek including Bald Hill.

1983: A sewer pipeline is installed along the top of Excelsior Creek using environmentally sensitive methods, resulting in little permanent damage.

By 1983 every creek except the top 500m of Excelsior Creek had a sewer installed along it, and the damage was obvious. News that the Water Board planned to extend the sewer down this creek as well was distressing for local people who cared about the bush and they successfully lobbied for a change of plan. The sewer still went ahead but was placed about 20 metres above the creek, and great care was taken to minimise the

The top section of Excelsior Creek retains much of its original natural character.

Above: *Bundeluk from the Durag Custodian Aboriginal Corporation and Warwick Watkins, Director of the Department of Lands, sign the new management agreement for Bidjigal Reserve.*

initial damage and rehabilitate the area afterwards. Today the creek remains in excellent condition: the disturbed area marked only by a change in slope and some scattered sandstone rubble.

1984-5: The first planned recreational track network is constructed as part of the Commonwealth Employment Program. Most of the sandstone steps date from this time.

1989: The first formal, Council assisted, bushcare project commences: at the corner of Cross and Cary Street.

1990s: Urban Development in West Pennant Hills / Castle Hill intensifies, bringing further loss of bushland in the local region – including Blue Gum High Forest.

1990-94: The Water Board (now Sydney Water) provides $470,000 from the Special Environmental Levy to repair bushland damaged by sewer installation. About 18,000 hours of bush regeneration are worked and over 4000 locally collected native plants planted.

1994: The Unilever company provides funds for bush regeneration on their property on North Rocks Road and the adjoining section of Excelsior Reserve. This is still continuing in 2004.

Descendants of the Darug people lodge a claim for a role in managing Excelsior Reserve and Darling Mills Forest.

1996: The Upper Parramatta River Catchment Trust constructs a flood retarding basin on Darling Mills Creek near Loyalty Road, to protect the Parramatta CBD from flooding. The basin wall is 30m high, made up of 23,000m^3 of concrete.

It's a controversial project due to its bushland setting, so great care is taken to

Above: *An early stage of construction of the Darling Mills Creek flood retarding basin. A notch is being cut into the rock for the basin wall to key into. A conveyor system is used to bring concrete in from the batching plant near the top of Loyalty Road.*

Right: *The bush makes way for the M2 motorway, clearing begins near Banksia Creek.*

Ann Parks

Keith Kinsella

minimise and repair disturbance during construction.

Associated works include:

- funding for bush regeneration in the reserve for the next 7 years,
- construction of a lookout and timber stairs near the basin wall
- stabilisation of creek banks upstream of the basin wall with sandstone gabions

Most of the creeks are, for the first time, assigned official names – suggested by the Excelsior Reserve Management Committee and the Hills District Historical Society inc.

1997: The M2 Motorway is opened. Another environmentally controversial project, it destroys large areas of local bushland, and disconnects part of the bushland on the southern side of Blue Gum Creek from the rest of the reserve.

2001: In an effort to prevent more local wildlife extinctions, BHSC and Cumberland State Forest commence a fox control program in the Reserve. 1080 poison baits are used, and strict controls ensure that wildlife and pets can't access the baits.

2004: A large portion of Excelsior Reserve, including most of the area north of Rifle Range Creek, is renamed Bidjigal, and Darling Mills State Forest is added to it. A new board is formed to manage it, with representatives of Darug descendants, Baulkham Hills Council, the Baulkham Hills Bushland Conservation Committee, and the local community.

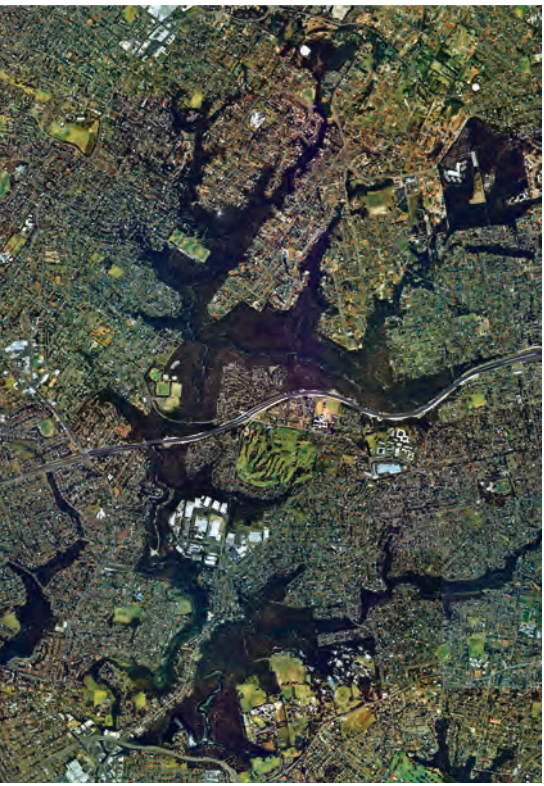
The future

- We learn to live near the bush without damaging it.
- Many bush neighbours are involved in hands on maintenance.
- The community values the reserve and its wildlife, and funding is available for effective management.
- No more animals become extinct.
- Fox numbers remain low, dogs and cats are prevented from roaming in the reserve.
- Bandicoots, and Water Rats return.

Aerial photographs can tell us a lot about changing landuse patterns.

1951

- a large part of the region still retains its original native vegetation
- some Blue Gum High Forest and Turpentine- Ironbark Forest still remains in higher areas.
- Darling Mills Creek catchment is mostly rural, with few roads and lots of open space. Water runoff follows natural patterns and is still fairly clean when it reaches creeks.



1997

- bushland has been cleared almost to the reserve boundary.
- the reserve is more isolated: cut off from the Lake Parramatta/Hunts Creek Corridor, and only narrowly connected to bushland in the Cumberland Forest IBM area.
- rainwater runs over roads and other hard surfaces, collecting pollutants; it flows into an engineered stormwater system and enters reserve at fixed points.
- 600 houses, plus industrial estates, now back onto the reserve: the bushland has many new problems to contend with including weeds and encroachments.

Photos supplied by Quasco Pty Ltd.

Tracks

Murri-yanna Track

An 8 km track leading from Whitbread Place, North Rocks to Heidi Place, West Pennant Hills.

Staying close to Darling Mills Creek for most of its length, it provides the best access to rainforest and riverflat areas, but also includes parts of the reserve most altered by weed invasion and the effects of surrounding development. Time: about 3.5 hours

Burraga Track

A 4.7 km loop track, accessed from various points; it passes through some of the healthiest weed free bushland, in areas away from creeks and boundaries.

Burraga is the Darug name for the Bandicoot. Time: about 2.5 hours.

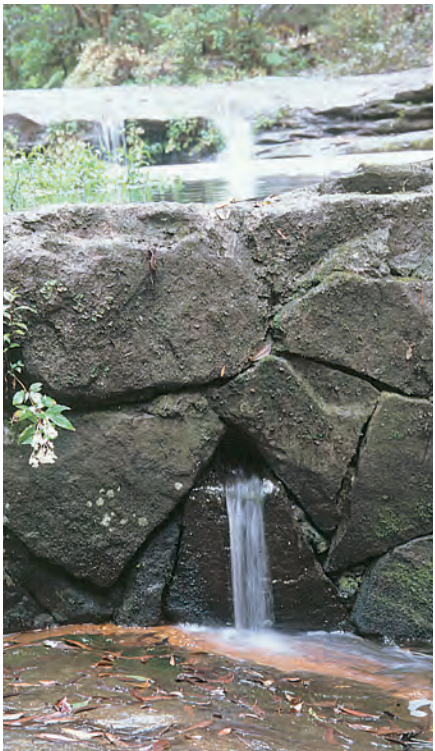
Platypus Track

A 1.7 km loop. Platypus were regularly seen along this section of Excelsior Creek until the mid 1970s. The track passes the once popular swimming and picnicking spot at Loch Bruce. Time: about 1 hour.

Bottom left: *A natural swimming pool on Darling Mills Creek, below Ted Horwood Reserve.*

Right: *The track passes through a culvert in the massive concrete wall of the flood retarding basin or, if the Creek is flowing too strongly, a detour can be made across the bridge.*

Bottom right: *The Loch Bruce Dam is built of neatly inter-locking sandstone blocks.*



Reserve visitors should be aware that:

- track condition is variable – these are "bush style" tracks, the network has frequent steep, rugged and uneven sections and informal creek crossings sometimes with slippery rocks that may not be passable during wet weather;
- there are additional tracks not marked on the map;
- creek water is unsafe for drinking or swimming;
- they should quickly leave creekside areas if it rains – a stormwater impoundment area extends about 2km upstream of Loyalty Road – it is designed to flood, and water levels can rise quickly in heavy or consistent rain;
- dogs must be on a leash at all times – unrestrained dogs can frighten or hurt small children, wildlife, and other dogs;
- the reserve is periodically closed to dogs for a few weeks because of fox baiting – warning signs will be posted at all access points;
- the reserve is a sanctuary for native plants and animals – care should be taken not to damage, disturb, or injure them.
- fires should only be lit in designated fireplaces.

Above: *Thick scrub on Bald Hill provides a safe place for Burraga to shelter.*

Right: *Callicoma in flower beside the Murriyanna Track.*

Bidjigal Reserve Native Plant Species, (from Urban Bushland Management 1994)

Botanic name	Common name
PTERIDOPHYTA (Ferns)	
Adiantaceae	
Adiantum aethiopicum	Common Maidenhair Fern
Adiantum hispidulum	Rough Maidenhair Fern
Cheilanthes distans	
Cheilanthes sieberi	Poison Rock Fern
Cheilanthes tenuifolia	
Pellaea falcata	Sickle Fern
Aspleniaceae	
Asplenium flabellifolium	Necklace Fern
Asplenium australasicum	Birds Nest Fern
Blechnaceae	
Blechnum amgibuum	
Blechnum cartilagineum	Gristle Fern
Blechnum minus	
Blechnum nudum	Fishbone Water Fern
Blechnum wattsii	
Doodia aspera	Rasp Fern
Doodia caudata	Small Rasp Fern
Doodia media	Common Rasp Fern
Cyatheaceae	
Calochlaena dubia	False Bracken Fern
Cyathea australis	Common Tree Fern
Cyathea cooperi	Scaly Tree Fern
Davalliaceae	
Davallia pyxidata	Hare's Foot Fern
Dennstaedtiaceae	
Histiopteris incisa	Bat's Wing Fern
Hypolepis muelleri	Harsh Ground Fern
Pteridium esculentum	Bracken Fern
Gleicheniaceae	
Gleichenia dicarpa	Pouched Coral Fern
Gleichenia microphylla	Scrambline Coral Fern
Sticherus flabellatus	Umbrella Fern
Hyophyllaceae	
Grammitis billardieri	Finger Fern
Hymenophyllum cupressiforme	Common Filmy Fern
Sticherus flabellatus	
Lindseaceae	
Lindsaea linearis	Screw Fern
Lindsaea microphylla	Lacy Wedge Fern
Osmundacea	
Todea barbara	King Fern
Polypodiaceae	
Platycerium bifurcatum	Elk Horn
Pyrrosia rupestris	Rock Felt Fern
Pteridaceae	
Pteris tremula	Tender Brake
Schizaeceae	
Schizaea bifida	Cock's Comb Fern
GYMNOSPERMAE	
Podocarpaceae	
Podocarpus spinulosa	Plum Pine
ANGIOSPERMAE	
Dicotyledons	
Acanthaceae	
Pseuderanthemum variabile	Pastel Flower
Amaranthaceae	
Alternanthera denticulata	Wireweed
Amaranthus viridis	Green Amaranth
Apiaceae	
Actinotus helianthi	Flannel Flower
Actinotus minor	Lesser Flannel Flower
Centella asiatica	Swamp Pennywort
Hydrocotyle acutiloba	
Hydrocotyle laziflora	
Hydrocotyle tripartita	
Platysace ericoides	
Platysace lanceolata	Narrow leaf Carrot Tops
Platysace linearifolia	Carrot Tops
Xanthosia pilosa	Hairy Xanthosia
Xanthosia tridentata	Rock Xanthosia
Apocynaceae	
Parsonsia straminea	Native Yam
Araliaceae	
Astrotricha flocossa	Lance-leaf Star-hair
Polyscias sambucifolius	Elderberry Panax
Asclepiadaceae	
Marsdenia suaveolens	Scented Marsdenia
Tylophora barbata	Bearded Tylophora
Asteraceae	
Cassinia aculeata	Common Cassinia, Dogwood
Cassinia uncata	Bent Cassinia
Cotula australis	Carrot Weed
Gnaphalium sphaericum	Cudweed
Helichrysum adnatum	Paper Daisy
Helichrysum apiculatum	
Helichrysum diosmifolium	Sago Bush

Bidjigal Reserve Native Plant Species, (from Urban Bushland Management 1994)

Botanic name	Common name
Helichrysum rutidolepis	
Lagenifera stitita	
Olearia microphylla	Daisy Bridal Bush
Olearia tomentosa	
Senecio hispidulus	
Senecio minimus	
Sigesbeckia orientalis	Indianweed
Bignoniaceae	
Pandorea pandorana	Wonga Wonga Vine
Brassicaceae	
Cardamine paucijuga	
Campanulaceae	
Wahlenbergia gracilis	
Cassythaceae	
Cassytha paniculata	Devil's Twine
Cassytha pubescens	Downy Dodder Laurel
Casuarinaceae	
Allocasuarina littoralis	Black She-Oak
Allocasuarina torulosa	Forest Oak
Celastraceae	
Maytenus silvestris	Maytenus
Clusiaceae	
Hypericum gramineum	St John's Wort
Convolvulaceae	
Cuscuta australis	
Dichondra repens	Kidney Weed
Crassulaceae	
Crassula sieberana	
Cunoniaceae	
Callicoma serratifolia	Black Wattle
Ceratopetalum apetalum	Coachwood
Ceratopetalum gummiferum	Christmas Bush
Schizomeria ovata	Crab Apple
Dilleniaceae	
Hibbertia aspera	
Hibbertia dentata	Guinea Flower
Hibbertia empetrifolia	Trailing Guinea Flower
Hibbertia obtusifolia	Grey Guinea Flower
Hibbertia sericea	
Droseraceae	
Drosera auriculata	Sundew
Drosera peltata	
Drosera spathulata	Common Sundew
Elaeocarpaceae	
Elaeocarpus reticulatus	Blueberry Ash

Botanic name	Common name
Epacridaceae	
Acrotiche divaricata	
Astroloma humifusum	Craneberry Heath
Astroloma sp.	
Dracophyllum secundum	
Epacris pulchella	NSW Coral Heath
Epacris purpurescens	
Leucopogon juniperinus	Prickly Beard Heath
Leucopogon lanceolatus	Lance-leaved Beard Heath
Monotoca elliptica	
Monotoca scoparia	
Styphelia triflora	
Styphelia tubiflora	
Trochocarpa laurina	Tree Heath
Woollsia pungens	Woollsia
Euphorbiaceae	
Amperea xiphoclada	Broom Spruce
Breynia oblongifolia	Breynia
Omalanthus populifolius	Bleeding Heart
Phyllanthus thymoides	Thyme Spurge
Eupomatiaceae	
Eupomatia laurina	Bolwarra
Fabaceae	
Bossiaea heterophylla	Variable Bossiaea
Bossiaea obcordata	Spiny Bossiaea
Bossiaea scolopendria	
Desmodium brachypodum	
Desmodium varians	
Dillwynia retorta	Eggs & Bacon
Glycine clandestina	Love Creeper
Glycine tabacina	
Gompholobium glabratum	Dainty Wedge Pea
Hardenbergia violaceae	Purple Twining Pea
Hovea linearis	
Hovea purpurea?	
Kennedia rubicunda	Dusky Coral Pea
Oxylobium ilicifolium	
Phyllota grandiflora	
Pultenaea daphnoides	Large-leaved Bush Pea
Pultenaea flexilis	Graceful Bush-pea
Pultenea villosa	Hairy Bush Pea
Geraniaceae	
Geranium homeanum	Native Geranium
Pelargonium inodorum	
Goodeniaceae	
Dampiera stricta	
Goodenia hederaceae	
Goodenia heterophylla	Variable Goodenia
Scaveola ramosissima	Fan Flower

Bidjigal Reserve Native Plant Species, (from Urban Bushland Management 1994)

Botanic name	Common name
Haloragaceae	
Gonocarpus tetragynus	Common Raspwort
Gonocarpus teucrioides	Raspwort
Lamiaceae	
Plectranthus parviflorus	Cockspur Flower
Prunella vulgaris	
Lobeliaceae	
Lobelia dentata	Lobelia
Lobelia gracilis	
Pratia pedunculata	
Pratia purpurascens	White Root
Loganiaceae	
Logania albiflora	
Mitrasacmepolymorpha	Varied Mitrewort
Loranthaceae	
Dendrophthoe vitellina	
Meliaceae	
Melia azederarch	White Cedar
Menispermaceae	
Sarcopetalum harveyanum	Pearl Vine
Stephania japonica var. discolor	Snake Vine
Synoum gladulosum	
Mimosaceae	
Acacia decurrens	Green Wattle
Acacia echinula	
Acacia elata	Mountain Cedar Wattle
Acacia falcata	Sickle-leaved Wattle
Acacia floribunda	Gossamer Wattle
Acacia linifolia	Flax-leaved Wattle
Acacia longifolia	Sydney Golden Wattle
Acacia myrtifolia	Myrtle Wattle
Acacia parramattensis	Sydney Green Wattle
Acacia pendula	
Acacia stricta	Straight Wattle
Acacia suaveolens	Sweet-scented Wattle
Acacia ulicifolia	Prickly Moses
Myrsinaceae	
Rapanea variabilis	Muttonwood
Myrtaceae	
Acmena smithii	Lilly Pilly
Angophora bakeri	Narrow-leaved Apple
Angophora costata	Smooth-barked Apple
Angophora hispida	Dwarf Apple
Austromyrtus tenuifolia	Narrow-leaf Myrtle
Backhousia myrtifolia	Grey Myrtle
Baeckea linifolia	Swamp Baeckia
Callistemon citrinus	Red Bottlebrush
Eucalyptus globoidea	White Stringybark
Eucalyptus gummifera	Red Bloodwood
Eucalyptus pilularis	Blackbutt
Eucalyptus piperita	Sydney Peppermint
Eucalyptus resinifera	Red Mahogany
Eucalyptus saligna	Sydney Blue Gum
Eucalyptus umbra	Bastard Mahogony
Kunzea ambigua	Tick Bush
Leptospermum attenuatum	Flaky-barked Tea-tree
Leptospermum flavescens	Coast Tea-tree
Melaleuca ericifolia	Swamp Paperbark
Melaleuca hyoericifolia	Red-flowered Paperbark
Melaleuca linariifolia	Snow in Summer
Micromyrtus ciliata	
Rhodamnia rubescens	Scrub Turpentine
Syncarpia glomulifera	Turpentine
Tristaniopsis laurina	Water Gum
Olacaceae	
Olax stricta	
Oleaceae	
Notelaea longifolia	Large Mock Olive
Onagaraceae	
Epilobium billardierianum	Willow Herb
Oxalidaceae	
Oxalis corniculata	Creeping Wood-sorrel
Pittosporaceae	
Billardiera scandens	Apple Dumplings
Bursaria spinosa	Blackthorn
Pittosporum undulatum	Mock Orange
Pittosporum revolutum	Hairy Pittosporum
Plantaginaceae	
Plantago debilis	Slender Plantain
Polygalaceae	
Comesperma ericinum	Matchheads
Comesperma sphaerocarpum	
Comesperma volubile	Love Creeper
Polygonaceae	
Muehlenbeckia gracillima	Slender Lignum
Persicaria decipiens	Spotted Knotweed
Persicaria hydropiper	Water Pepper
Persicaria lapathifolium	Knotweed
Persicaria strigosum	Spotted Knotweed
Rumex brownii	Swamp Dock
Proteaceae	
Banksia oblongifolia	
Banksia serrata	Old Man Banksia
Banksia spinulosa	Haripin Banksia
Grevillea buxifolia	Grey Spider Flower

Bidjigal Reserve Native Plant Species, (from Urban Bushland Management 1994)

Botanic name	Common name
Grevillea linearifolia	White Spider Flower
Grevillea sericea	Pink Spider Flower
Grevillea speciosa	Red Spider Flower
Hakea dactyloides	Broad-leaved Hakea
Hakea salicifolia	Willow-leaved Hakea
Hakea sericea	Needle Bush
Isopogon anemonifolius	Drumsticks
Isopogon anethifolius	Drumsticks
Lambertia formosa	Mountain Devil
Lomatia myricoides	Naïve Parsley
Lomatia silaifolia	Crinkle Bush
Persoonia laurina	
Persoona levis x linearis	
Persoonia linearis	Narrow-leaved Geebung
Petrophile pulchella	Cone-sticks
Stenocarpus salignus	Scrub Beefwood
Telopea speciosissima	Waratah
Xylomelum pyriforme	Woody Pear
Ranunculaceae	
Clematis aristata	Toothed Clematis
Clematis glycinoides	Old Man's Beard
Phamnaceae	
Alphitonia excelsa	Red Ash
Cryptandra ericoides	heath Cryptandra
Pomaderris discolor	Pomaderris
Pomaderris lanigera	Woolly Pomaderris
Rosaceae	
Rubus parviflorus	Native Raspberry
Rubiaceae	
Galium binifolium	Bedstraw
Galium propinquum	
Morinda jasminoides	Morinda
Opercularia aspera	Common Stinkweed
Opercularia varia	
Pomax umbellata	Pomax
Rutaceae	
Boronia ledifolia	Sydney Boronia
Boronia polygalyfolia	
Correa reflex	Native Fushcia
Eriostemon australasius	Pink Waxflower
Zieria pilosa	Hairy Zieria
Zieria smithii	Sandfly Zieria
Santalaceae	
Excocarpus cupressiformis	Native Cherry
Leptomeria acida	
Sapindaceae	
Dodonaea triquetra	Hop Bush
Scrophulariaceae	
Gratiola latifolia	
Veronica calycina	
Veronica plebeia	Eastern Speedwell
Solanaceae	
Nicotiana debneyi	
Solanum aviculare	Kangaroo Apple
Salanum prinophyllum	Forest Nightshade
Sterculiaceae	
Lasipetalum ferrugineum var *cordatum*	
Lasipetalum parviflorum	
Seringea arborescens	
Thymelaeaceae	
Pimelea linifolia	Slender Rice Flower
Tremandraceae	
Tethratheca glandulosa	
Violaceae	
Hybanthus monopetalus	Slender Violet
Viola hederaceae (forms A & B)	Native Violet
Vitaceae	
Cayratia clematidea	Native Grape
Cissus antarctica	Water Vine
Cissus hypoglauca	Five-leaf Water Vine
MONOCOTYLEDONS	
Araceae	
Alocasia macrorrhizos	Cunjevoi
Centrolepidaceae	
Centrolepis fascicularis	
Commelinaceae	
Commelina cyanea	Scurvy Weed
Cyperaceae	
Caustis flexosa	Old Man's Beard
Cyathochaeta diandra	
Cyperus brevifolius	Mullumbimby Couch
Cyperus conjestus	
Cyperus difformis	Umbrella Sedge
Cyperus gracilis	
Gahnia clarkei	Tall Saw-sedge
Gahnia sieberiana	
Lepidosperma laterale	Variable Sword-sedge
Lepidosperma limicola	Razor Sedge
Ptilanthelium deustum	Horned Sedge
Schoenus ericetorum	Heath Bog Rush
Schoenus imberbis	Beardless Bog Rush
Schoenus melanostachys	

Bidjigal Reserve Native Plant Species, (from Urban Bushland Management 1994)

Botanic name	Common name
Haemodoraceae	
Haemodorum planifolium	Bloodroot
Iridaceae	
Patersonia glabrata	Native Iris
Patersonia sericea var *sericea*	Hariy Flag Iris
Juncaceae	
Juncus bufonius	
Juncus cognatus	
Juncus continuous	
Juncus prismatocarpus	Branching Rush
Juncus usitatus	Tussock Rush
Triglochin striata	
Liliaceae	
Arthropodium milleflorum	Pale Vanilla Lily
Burchardia umbellata	Milkmaids
Caesia parviflora	Pale Grass-lily
Caesia vittata	Blue Grass-lily
Dianella caerulea	Paroo Lily
Dianella levis	Flax Lily
Dianella revoluta	Flax Lily
Laxmannia gracilis	Slender Wire Lily
Orchidaceae	
Acianthus exsertus	Gnat Orchid
Acianthus fornicatus	Pixie Caps
Bulbophyllum exiguum	
Caladenia alba	
Caladenia major	
Calochilus campestris	Bearded Orchid
Calochilus paludosus	
Calochilus robertsonii	
Corybus sp.	
Cryptostylis erecta	
Cryptostylis subulata	Duck Orchid
Cymbidium suave	
Dendrobium linguiforme	Tongue Orchid
Diuris aurea	Donkey Orchid
Dipodium punctatum	Hyacinth Orchid
Galeola cassythoides	
Liparis reflexa	
Lyperanthus suaveolens	Brown Beaks
Microtis unifolia	Onion Orchid
Pterostylis acuminata	Sharp Greenhood
Pterostylis baptistii	King Greenhood
Pterostylis daintreana	Daintrey's Greenhood
Pterostylis grandiflora	Cobra Greenhood
Pterostylis longifolia	
Pterostylis nutans	Nodding Greenhood
Pterostylis ophioglossa	Snake-tongue Greenhood
Pterostylis plumosa	Barded Greenhood
Sarcochilus olivaceous	
Thelymitra pauciflora	Slender Sun Orchid
Philesiaceae	
Lustrephus latifolius	Wombat Berry
Geitonoplesium cymosum	Scrabling Lily
Poaceae	
Aristida vagans	Wire Grass
Danthonia tenuior	
Deyeuxia decipiens	Bent Grass
Dichelachne micrantha	Short Hair Plume Grass
Dichelachne rara	Plume Grass
Echinopogon caespitosus	Tufted Hedgehog Grass
Entolasis marginata	Margined Panic Grass
Entolasia stricta	Wiry Panic Grass
Eragrostis brownii	Brown's Love Grass
Eragrostis leptostachya	
Imperata cylindrica	Blady Grass
Lolium perennial	Perennial Rye Grass
Microlaena stipoides	Weeping Meadow Grass
Oplismenus aemulus	Basket Grass
Oplismenus imbecillis	Basket Grass
Stipa sp.	
Themeda triandra	
Zoysia macrantha	Saltwater Couch
Restionaceae	
Lepyrodia scariosa	Chaffy Scale Rush
Restio dimorphus	
Smilacaceae	
Smilax australis	Austral Sarsaparilla
Smilax glyciphylla	Sweet Sarsaparilla
Stylideaceae	
Stylidium graminifolium	Grass Trigger Plant
Stylidium productum	
Typhaceae	
Typha orientalis	Cumbungi
Xanthorrhoeaceae	
Lomandra cylindrica	
Lomandra filiformis	Wattle Mat-rush
Lomandra gracilis	
Lomandra longifolia	Spiny-headed Mat-rush
Xanthorrhoea arborea	
Xanthorrhoea resinosa	Grass Tree

Fauna Species Recorded and Likely to Occur in Bidjigal Reserve (from Burcher 2003)

Key

Record – AES: Current survey; MKES Mount King Ecological Surveys 1992; NPWS – record within 5km on NPWS Wildlife Atlas; R – reported by local resident.

Frogs

Scientific name	Common name
Crinia signifera	Common Eastern Froglet
Limnodynastes dumerilli	Pobblebonk
Limnodynastes peronii	Striped Marsh Frog
Limnodynastes tasmaniensis	Spotted Marsh Frog
Pseudophrye bibroni	Brown Frog
Litoria caerulea	Green Tree Frog
Litoria dentata	Keferstein's Tree Frog
Litoria fallax	Eastern Dwarf Tree Frog
Litoria peronii	Peron's Tree Frog
Litoria phyllochroa	Leaf-green Tree Frog

Reptiles

Scientific name	Common name
Chelodina longicollis	Eastern Snake-necked Tortoise
Diplodactylus vittatus	Eastern Stone Gecko
Oedura lesueurii	Lesueur's Velvet Gecko
Phyllurus platurus	Broad-tailed Gecko
Underwoodisaurus milii	Thick-tailed Gecko
Pygopus lepidopodus	Southern Scaly-foot
Amphibolurus muricatus	Jacky Lashtail
Physignathus lesueurii	Eastern Water Dragon
Ctenotus robustus	Robust Ctenotus
Ctenotus taeniolatus	Copper-tailed Ctenotus
Eulamprus quoyii	Eastern Water-skink
Lampropholis delicata	Dark-flecked Garden Sunskink
Lampropholis guichenoti	Pale-flecked Garden Sunskink
Tiliqua scincoides	Common Bluetongue
Ramphotylphlops nigrescens	Blind Snake
Cacophis squamulosus	Golden Crowned Snake
Demansia psammophis	Yellow-faced Whipsnake
Furina diadema	Red-naped Snake
Hemisaspis signata	Blue-bellied Black Snake
Pseudechis porphyriacus	Red-bellied Black Snake
Pseudonaja textilis	Eastern Brown Snake
Vermicella annulata	Eastern Bandy-bandy

Birds

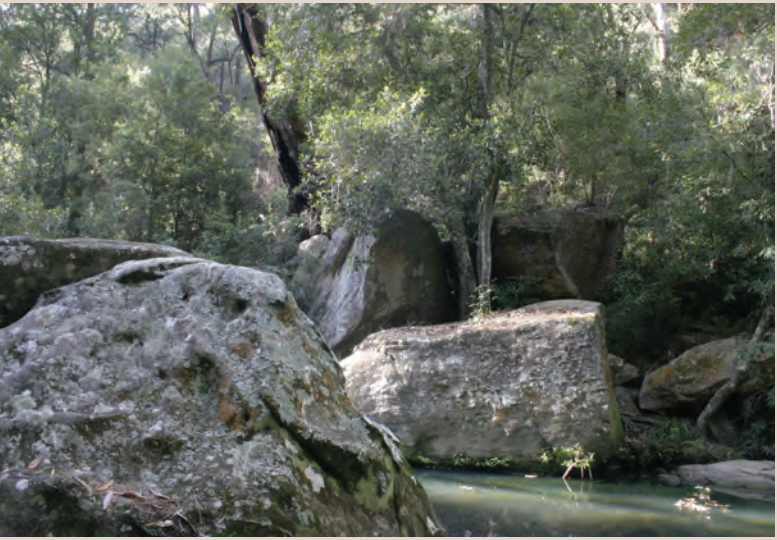
Scientific name	Common name
Coturnix ypsilophora	Brown Quail
Anas castanea	Chestnut Teal
Anas platyrhynchos	Mallard
Anas superciliosa	Pacific Black Duck
Chenonetta jubata	Australian Wood Duck
Phalacrocorax carbo	Great Cormorant
Phalacrocorax melanoleucos	Little Pied Cormorant
Phalacrocorax sulcirostris	Little Black Cormorant
Phalacrocorax varius	Pied Cormorant
Ardea pacifica	White-necked Heron
Egretta novaehollandiae	White-faced Heron
Accipiter novaehollandiae	Grey Goshawk
Aviceda subcristata	Pacific Baza
Falco peregrinus	Peregrine Falcon
Gallinula tenebrosa	Dusky Moorhen
Porphyrio porphyrio	Purple Swamphen
Vanellus miles	Masked Lapwing
Chalcophaps indica	Emerald Dove
Columba leucomela	White-headed Pigeon
Columba livia	Rock Dove
Ocyphaps lophotes	Crested Pigeon
Streptopelia chinensis	Spotted Turtle-Dove
Cacatua galerita	Sulphur-crested Cockatoo
Cacatua sanguinea	Little Corella
Cacatua tenuirostris	Long-billed Corella
Callocephalon fimbriatum	Gang-gang Cockatoo
Calyptorhynchus lathami	Glossy Black-Cockatoo
Eolophus roseicapillus	Galah
Alisterus scapularis	Australian King-Parrot
Lathamus discolor	Swift Parrot
Platycercus adscitus eximius	Eastern Rosella
Platycercus elegans	Crimson Rosella
Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet
Trichoglossus haematodus	Rainbow Lorikeet
Cacomantis flabelliformis	Fan-tailed Cuckoo
Cacomantis variolosus	Brush Cuckoo
Chalcites lucidus	Shining Bronze-Cuckoo
Eudynamys orientalis	Pacific Koel
Scythrops novaehollandiae	Channel-billed Cuckoo
Ninox boobook	Southern Boobook
Ninox strenua	Powerful Owl
Podargus strigoides	Tawny Frogmouth
Hirundapus caudacutus	White-throated Needletail
Dacelo novaeguineae	Laughing Kookaburra
Todiramphus sanctus	Sacred Kingfisher
Eurystomus orientalis	Dollarbird
Cormobates leucophaeus	White-throated Treecreeper
Malurus cyaneus	Superb Fairy-wren
Malurus lamberti	Variegated Fairy-wren
Pardalotus punctatus	Spotted Pardalote
Acanthiza lineata	Striated Thornbill
Acanthiza pusilla	Brown Thornbill
Gerygone mouki	Brown Gerygone
Sericornis frontalis	White-browed Scrubwren
Acanthorhynchus tenuirostris	Eastern Spinebill
Anthochaera carunculata	Red Wattlebird
Anthochaera chrysoptera	Little Wattlebird
Lichenostomus chrysops	Yellow-faced Honeyeater
Lichenostomus melanops	Yellow-tufted Honeyeater

Fauna Species Recorded and Likely to Occur in Bidjigal Reserve (from Burcher 2003)

Botanic name	Common name
Lichenostomus penicillatus	White-plumed Honeyeater
Manorina melanocephala	Noisy Miner
Meliphaga lewinii	Lewin's Honeyeater
Melithreptus lunatus	White-naped Honeyeater
Philemon corniculatus	Noisy Friarbird
Phylidonyris nigra	White-cheeked Honeyeater
Phylidonyris novaehollandiae	New Holland Honeyeater
Xanthomyza phrygia	Regent Honeyeater
Eopsaltria australis	Eastern Yellow Robin
Petroica rosea	Rose Robin
Psophodes olivaceus	Eastern Whipbird
Daphoenositta chrysoptera	Varied Sittella
Colluricincla harmonica	Grey Shrike-thrush
Falcunculus frontatus	Eastern Shrike-tit
Pachycephala pectoralis	Golden Whistler
Pachycephala rufiventris	Rufous Whistler
Grallina cyanoleuca	Magpie-lark
Monarcha melanopsis	Black-faced Monarch
Myiagra cyanoleuca	Satin Flycatcher
Myiagra rubecula	Leaden Flycatcher
Rhipidura albiscapa	Grey Fantail
Rhipidura leucophrys	Willie Wagtail
Rhipidura rufifrons	Rufous Fantail
Coracina novaehollandiae	Black-faced Cuckoo-shrike
Coracina tenuirostris	Cicadabird
Oriolus sagittatus	Olive-backed Oriole
Artamus cyanopterus	Dusky Woodswallow
Cracticus torquatus	Grey Butcherbird
Gymnorhina tibicen	Australian Magpie
Strepera graculina	Pied Currawong
Corvus coronoides	Australian Raven
Ptilonorhynchus violaceus	Satin Bowerbird
Neochmia temporalis	Red-browed Finch
Hirundo neoxena	Welcome Swallow
Cecropis ariel	Fairy Martin
Pycnonotus jocosus	Red-whiskered Bulbul
Zosterops lateralis	Silvereye
Turdus merula	Eurasian Blackbird
*Acridotheres tristis**	Common Myna
Mammals	
Tachyglossus aculeatus	Echidna
Petaurus breviceps	Sugar Glider
Pseudocheirus peregrinus	Common Ringtail Possum
Trichosurus vulpecula	Common Brushtail Possum
Pteropus poliocephalus	Grey-headed Flying-fox
Mormopterus norfolkensis	Eastern Freetail-bat
Mormopterus sp 1	undescribed mastiff-bat
Nyctinomus australis	White-striped Freetail-bat
Chalinolobus morio	Chocolate Wattled Bat
Miniopterus schreibersii	Common Bentwing-bat
Nyctophilus geoffroyi	Lesser Long-eared Bat
Nyctophilus gouldi	Gould's Long-eared Bat
Scoteanax rueppellii	Greater Broad-nosed Bat
Vespadelus regulus	Southern Forest Bat
Vespadelus vulturnus	Little Forest Bat
*Mus musculus**	House Mouse
Rattus fuscipes	Bush Rat
*Rattus rattus**	Black Rat
Hydromys chrysogaster	Water Rat
*Oryctolagus cuniculus**	Rabbit
*Canis lupus**	Dingo, domestic dog
*Vulpes vulpes**	Fox
*Felis catus**	Cat

This list was produced with information collected by AES Environmental Consulting; Mount King Ecological Surveys; NPWS Wildlife Atlas and local residents.

*Introduced species



Darling Mills Creek, below Ted Horwood Reserve.

References

[1] Attenbrow, V (2002) *Sydney's Aboriginal Past* University of NSW Press.

Benson D and Howell J, *The Natural Vegetation of the Sydney 1:100 000 map sheet*. Cunninghamia 3(4): 677-1004 1994.

Burcher P (2003) *Fauna Survey of Excelsior Reserve* Unpublished Report for Baulkham Hills Shire Council.

[2] Casey & Low Associates (1993) *Excelsior Reserve Historical Archaeology Survey: Final Report* In UPRCT (1994) Darling Mills Creek Stormwater Management Strategy Environmental Impact Statement.

Corkhill T (1992) *Preliminary Survey for Aboriginal Archaeological Sites* In UPRCT (1994), Darling Mills Creek Stormwater Management Strategy Environmental Impact Statement.

Corkhill T (1993) *Test Excavation of Five Rockshelters in the Darling Mills Creek Valley* In UPRCT (1994), Darling Mills Creek Stormwater Management Strategy Environmental Impact Statement.

Herbert C (Ed) (1980) *Geology of the Sydney 1:100,000 Sheet* Geological Survey of New South Wales Department of Mineral Resources.

Kohen J (1993) *The Darug and Their Neighbours The Traditional Aboriginal Owners of the Sydney Region* Darug Link in Association with Blacktown Historical Society.

Land Information Service website.

Urban Bushland Management (1994) *Final Report for Excelsior Reserve, Urban Bushland Restoration*. Report for Water Board.

Macquarie University, Centre for Environment and Urban Studies (1983) *Excelsior Park a Resources Study*.

Manidis Roberts Consultants (1989) *Excelsior Reserve Plan of Management*.

Mount King Ecological Surveys (1994) *Fauna Impact Statement* In UPRCT (1994), Darling Mills Creek Stormwater Management Strategy Environmental Impact Statement.

Millhouse, G (1987) *The Settlers of West Pennant Hills Valley 1799 Onward* Hills District Historical Society.

Ollif L (1973) *There Must Be a River – A History of Hornsby Shire* Angus and Robertson 1981 Edition.

Total Earth Care (1998) *Excelsior Reserve Bush Regeneration Programme Final Report* Unpublished Report.

Upper Parramatta Catchment Trust (1999) *Green Corridors Management Strategy* Prepared by Oculus Environmental Planning Consultants.

Urban Bushland Management (1994) *Final Report for Excelsior Reserve Urban Bushland Restoration* Unpublished Report.

Wilson P and Pullen N (2003) *North Rocks: a Brief History and Guided Tour* Hills District Historical Society.

Weidenhofer M (1973) *The Convict Years Transportation and the Penal System 1788-1868* Landsdowne Press.

Acknowledgements

Many people have assisted by sharing their knowledge and time; particularly Noelene Pullen, Peter Field, Ann Parks, Bundeluk, Ruth Ryan, Les Brown, Charles Croswell, Terry Blanch, Don Higginbotham, Steve Duneskey, Jill Reardon, Roger Reardon, Upper Parramatta River Catchment Trust, and Castle Hill Historical Society. Kelly Saunderson of Baulkham Hills Council deserves particular thanks for steering this project from concept to completion, and providing much encouragement and advice.

Was this booklet helpful to you?

Do you have any information about the history of the reserve, or some photos?

Have you seen plants or animals not on our list? Please let us know.

Contacts

The Hills Shire Council
PO Box 7064 Baulkham Hills BC 2153
Telephone: 9843 0555
Website: www.thehills.nsw.gov.au

Darug Custodian Aboriginal Corporation

PO Box 36 Kellyville NSW 2155

This booklet **was originally** produced by Baulkham Hills Shire Council with funding assistance from:

- Upper Parramatta Catchment Trust,
- Department of Sport and Recreation,
- Australian Government Envirofund

UPPER PARRAMATTA RIVER CATCHMENT TRUST

NSW Sport & Recreation

Natural Heritage Trust
Helping Communities Helping Australia
An Australian Government Initiative

envirofund

© Baulkham Hill Shire Council 2004

ISBN 0-9587344-2-9

Author: Virginia Bear
Map: Virginia Bear
Photography: Virginia Bear 2003/4 unless otherwise credited
Design and Layout: Wild Red Frog design 9954 9094
Printing: Lester Printing

Bidjigal is the new name for Excelsior Reserve and Darling Mills State Forest: part of a 300 hectare corridor of protected public bushland along Darling Mills Creek and its tributaries. One of Sydney's bushland treasures; it's home to 370 native plants and over 140 native animals, with a network of tracks providing many days of interesting exploration.

This booklet, with colour photographs throughout, tells the story of the area's natural and cultural heritage, and provides a detailed map of walking tracks and features. We hope it will help local residents and visitors to the area enjoy and appreciate this wonderful, wild landscape.

Wild Red Frog Design 02 9954 9094